

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

High Velocity Hurricane Protection Systems, Inc. 3827 Progress Ave. Naples, FL 34104

Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Category 5 Aluminum Hurricane Abatement System - L.M.I.

APPROVAL DOCUMENT: Drawing No. 14-1902, titled "Category 5 Rolling Hurricane Curtain", sheets 1 through 5 of 5, dated 04/15/2009, with last revision dated 01/15/2012, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E., bearing the Miami-Dade County Product Control renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA renews NOA # 10-0831.07 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Carlos M. Utrera, P.E.

MIAMI-DADE COUNTY
APPROYED

(10/16/2014

NOA No. 14-0811.18 Expiration Date: August 12, 2019 Approval Date: October 23, 2014 Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. 14-1902, titled "Category 5 Rolling Hurricane Curtain", sheets 1 through 5 of 5, dated 04/15/2009, with last revision dated 01/15/2012, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.

B. TESTS "Submitted under NOA # 10-0831.07"

- 1. Test reports on Uniform Static Air Pressure Test per TAS 202 of Category 5 Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-10-3000**, dated 02/12/2010, signed and sealed by Candido F. Font, P.E.
- 2. Test reports on Large Missile Impact Test per TAS 201-94 and Cyclic Wind Loading Test per TAS 203-94 of Category 5. Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-10-3001**, dated 02/12/2010, signed and sealed by Candido F. Font, P.E.

"Submitted under NOA # 09-0511.02"

- 3. Test reports on Uniform Static Air Pressure Test per TAS 202 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2503A**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
- 4. Test reports on Large Missile Impact Test per TAS 201-94 and Cyclic Wind Loading Test per TAS 203-94 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2503B**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
- 5. Test reports on Uniform Static Air Pressure Test per TAS 202 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2504A**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
- 6. Test reports on Large Missile Impact Test per TAS 201-94 and Cyclic Wind Loading Test per TAS 203-94 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2504B**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.

Carlos M. Utrera, P.E. Product Control Examiner

NOA No. 14-0811.18 Expiration Date: August 12, 2019

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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS (Continued)

- 7. Test reports on Uniform Static Air Pressure Test per TAS 202 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2505A**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
- 8. Test reports on Large Missile Impact Test per TAS 201-94 and Cyclic Wind Loading Test per TAS 203-94 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-09-2505B, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
- 9. Test report on Tensile Test of Category 5 Dual End Retention Rolling Hurricane Curtain Slats, Test Report No. **HETI-09-T100**, prepared by Hurricane Engineering & Testing, Inc., dated 01/30/2009, signed and sealed by Candido F. Font, P.E.

C. CALCULATIONS

1. Anchoring calculations and comparative analysis prepared Engineering Express, dated 08/07/2014, signed and sealed by Frank L. Bennardo, P.E

"Submitted under NOA # 10-0831.07"

2. Anchoring calculations and comparative analysis prepared Engineering Express, sheets 1 through 12 of 12, dated 08/25/2010, signed and sealed by Frank L. Bennardo, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of code conformance to FBC 2010 issued by Engineering Express, dated 10/03/2013, signed and sealed by Frank L. Bennardo, P.E.

"Submitted under NOA # 10-0831.07"

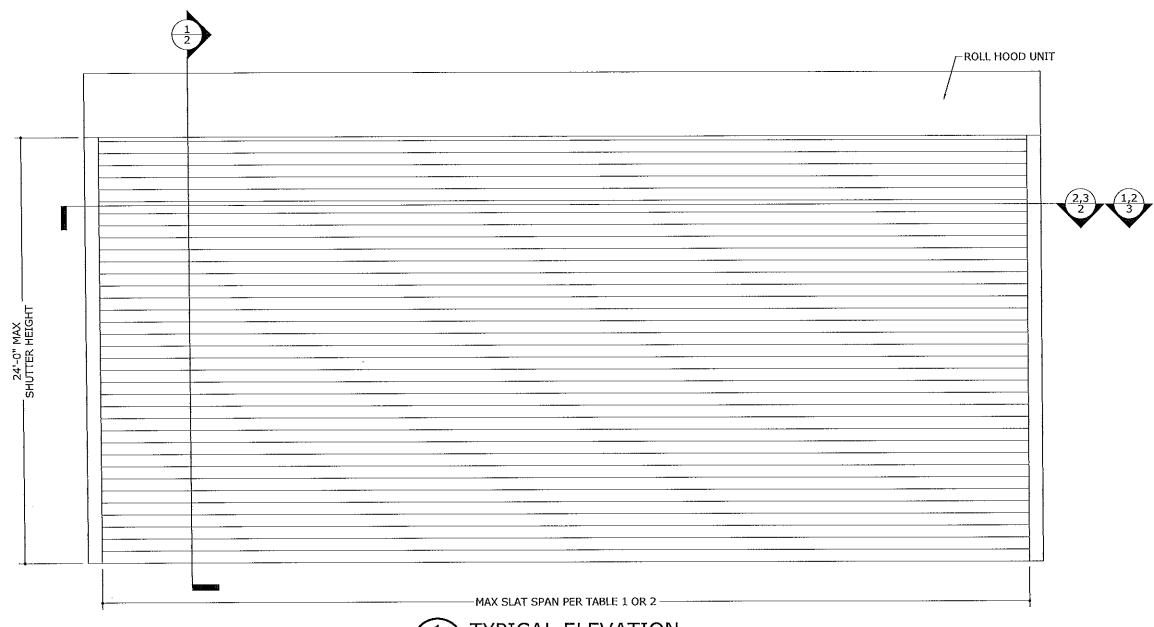
2. No financial interest letter issued by Engineering Express, dated 08/25/2010, signed and sealed by Frank L. Bennardo, P.E.

Carlos M. Utrera, P.E. Product Control Examiner NOA No. 14-0811.18

Expiration Date: August 12, 2019 Approval Date: October 23, 2014

CATEGORY 5 ROLLING HURRICANE CURTAIN

LARGE MISSILE IMPACT RESISTANT FOR USE WITHIN AND OUTSIDE THE HVHZ



GENERAL NOTES

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED AS AN IMPACT RESISTANT HURRICANE ABATEMENT PRODUCT IN ACCORDANCE WITH THE 2010 FLORIDA BUILDING CODE, FOR USE INSIDE AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, PER TAS 201 / 202 / 203 TEST STANDARDS.

2. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM.

3. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-10 AND CHAPTER 1609 OF THE 2010 FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.

4. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5

5. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT

6. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS.

7. ALL EXTRUSIONS SHALL BE OF THE MATERIALS INDICATED HEREIN.

8. ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.

9. ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED.



PRODUCT RENEWED as complying with the Florida Building Code
Acceptance No. 14.0911.18
Expiration Date 0. 112.12011

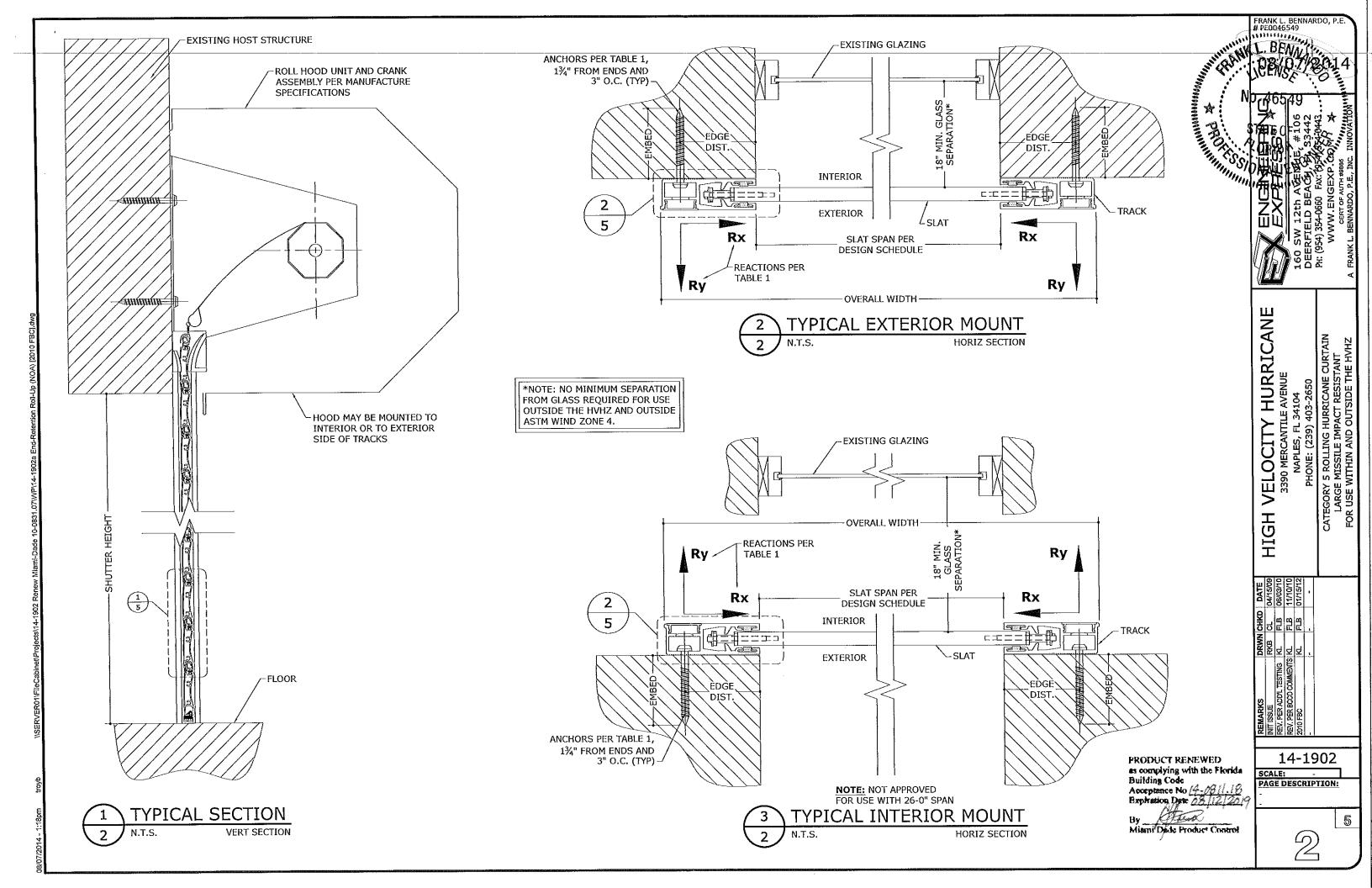
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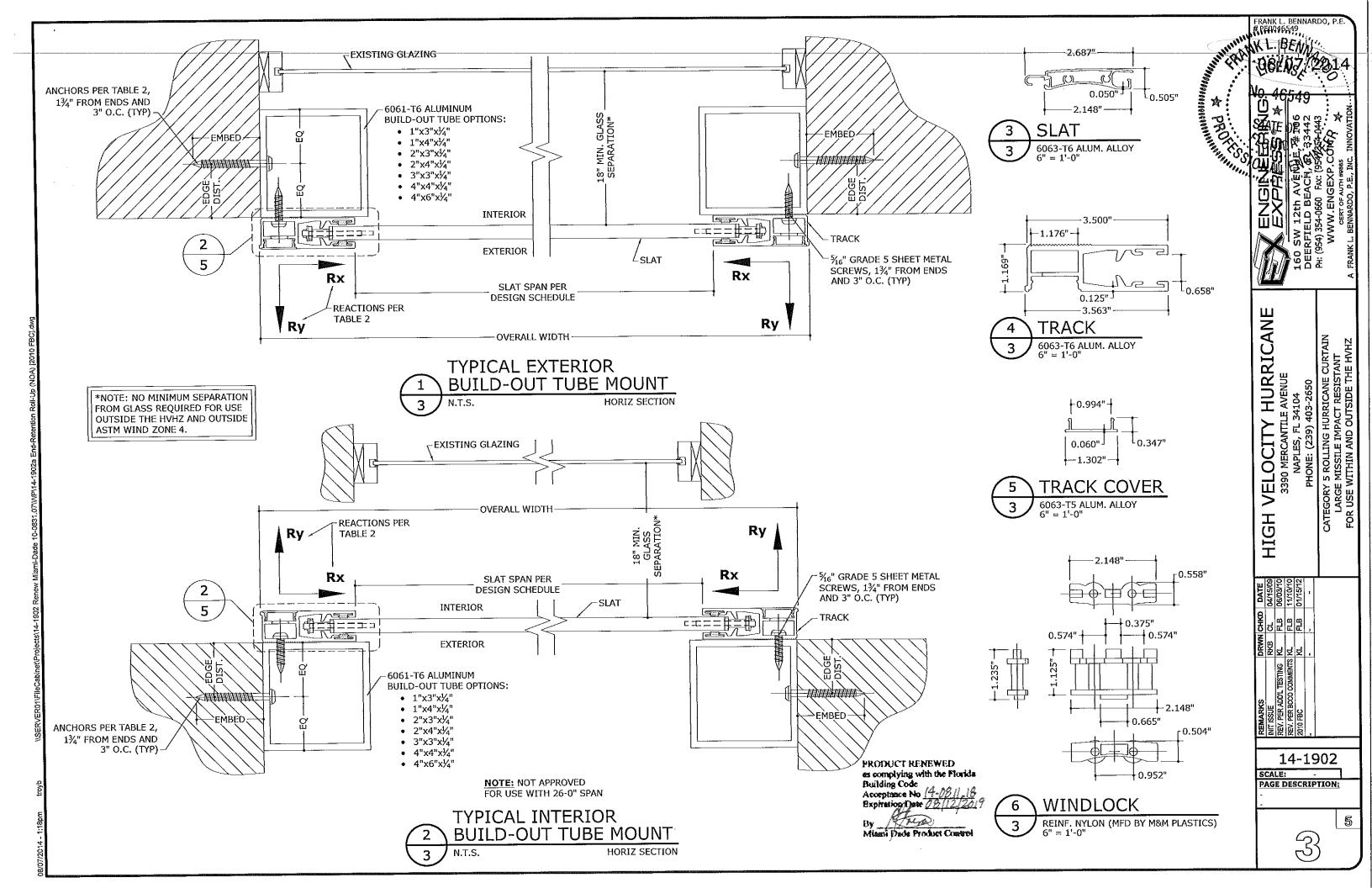
14-1902 SCALE: PAGE DESCRIPTION:

HIGH VELOCITY HURRICANE 3390 MERCANTILE AVENUE NAPLES, FL 34104

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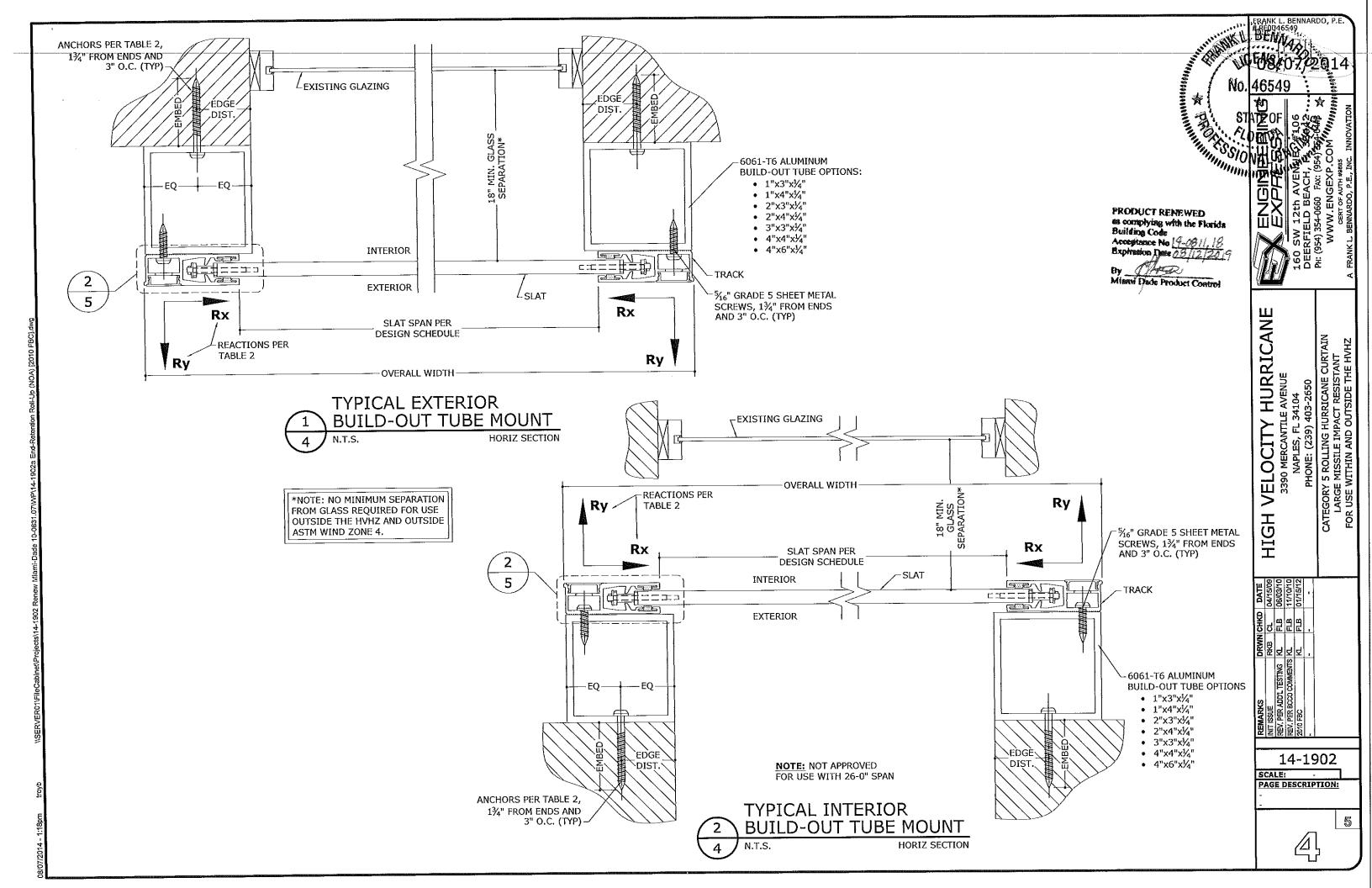


TABLE 1: DIRECT MOUNT INSTALLATION

	ANCHOR TYPE	SLAT SPAN															
SUBSTRATE		12'-0"				16'-0"				20'-0"				26'-0"*			
		ALLOV DES PRESSUF	IGN		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		FT)
		+		Ry	Rx	+	-	Ry	Rx	+		Ry	Rx	+	-	Ry	Rx
A36 STEEL (3/16" MIN)	5/16" GRADE 5 SHEET METAL SCREW	80.0	80.0	480.0	2560.0	80.0	80.0	640.0	3014.7	61.7	56.2	617.2	3828.9	37.6	45.1	585.7	3893.7
6061-T6 ALUMINUM (1/4" MiN)	5/16" GRADE 5 SHEET METAL SCREW	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
CONCRETE (3000 PSI MIN)	5/16" ITW TAPCON WITH 2-1/4" MIN EMBED AND 3-1/8" MIN EDGE DISTANCE	59.2	59.6	357.7	1895.7	49.3	51.3	410.5	1859.6	31.6	28.7	315.6	1958.4	19.3	23.0	299.5	1992.3
	3/8" HILTI HIT-RE 500 EPOXY ANCHOR WITH 4-1/2" MIN EMBED, 4" MIN EDGE DISTANCE AND S.S. HAS ROD	80.0	80.0	480.0	2560.0	80.0	80.0	640.0	3014.7	80.0	80.0	800.0	5454.5	50.0	60.0	780.0	5173.5
	3/8" POWERS WEDGE-BOLT WITH 3-1/2" MIN EMBED AND 3" MIN EDGE DISTANCE	80.0	80.0	480.0	2560.0	80.0	80.0	640.0	3014.7	50.5	45.7	504.6	3113.5	30,4	36.7	477.4	3144.6
GROUT- FILLED BLOCK	5/16" ITW TAPCON WTH 2-1/4" MIN EMBED AND 4" MIN EDGE DISTANCE	54.3	54.7	328.0	1738.0	45.3	47.1	377.2	1707.5	28.9	26.3	288.9	1790.7				

*NOTE: 26'-0" SPAN IS NOT APPROVED FOR INTERIOR MOUNT CONDITIONS

TABLE 2: BUILD-OUT TUBE MOUNT INSTALLATION

	ANCHOR TYPE	SLAT SPAN															
SUBSTRATE		12'-0"				16'-0"					20'	-0"		26'-0''*			
		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)	
		+	-	Ry	Rx	+	-	Ry	Rx	+	-	Ry	Rx	+	-	Ry	Rx
A36 STEEL (3/16" MIN)	5/16" GRADE 5 SHEET METAL SCREW	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
6061-T6 ALUMINUM (1/4" MIN)	5/16" GRADE 5 SHEET METAL SCREW	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
	5/16" ITW TAPCON WITH 2-1/4" MIN EMBED AND 3-1/8" MIN EDGE DISTANCE	59.2	59.6	357.7	1895.7	49.3	51.3	410.5	1859.6	31.6	28.7	315,6	1958.4	19.3	23.0	299.5	1992.3
CONCRETE (3000 PSI MIN)	3/8" HILTI HIT-RE 500 EPOXY ANCHOR WITH 4-1/2" MIN EMBED, 4" MIN EDGE DISTANCE AND S.S. HAS ROD	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
(8)	3/8" POWERS WEDGE-BOLT WITH 3-1/2" MIN EMBED AND 3" MIN EDGE DISTANCE	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
GROUT- FILLED BLOCK	5/16" ITW TAPCON WITH 2-1/4" MIN EMBED AND 4" MIN EDGE DISTANCE	54.3	54.7	328.0	1738.0	45.3	47.1	377.2	1707.5	28.9	26.3	288.9	1790.7				

*NOTE: 26'-0" SPAN IS NOT APPROVED FOR INTERIOR MOUNT CONDITIONS

-ROLL UP SHUTTER **BUMBER** PRODUCT RENEWED as complying with the Florida Building Code Acceptance No 14-08 Repression Page 08/12 Missni Dade Product Control -0.035" THICK SLAT LINER

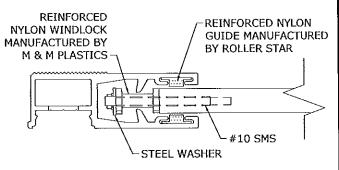




TABLE NOTES:

- 1. DETERMINE WHICH MOUNTING CONDITION IS APPLICABLE AND SELECT TABLE 1 OR 2 ACCORDINGLY.
- 2. TO DETERMINE THE ALLOWABLE DESIGN PRESSURES AND REACTIONS, MATCH THE ANCHOR TYPE WITH THE CORRESPONDING SLAT SPAN.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- EDGE DISTANCE OF 1/2" IS ACCEPTABLE FOR ANCHORS TO STEEL OR ALUMINUM.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
- 6. MACHINE SCREWS SHALL BE INSTALLED WITH FULL ENGAGEMENT OF THREADS INTO METAL HOST STRUCTURE AND MAY HAVE EITHER A FLAT HEAD, PAN HEAD, TRUSS HEAD, OR OTHER HEAD STYLES.
- 7. ZZZZZDENOTES CONDITIONS NOT APPROVED FOR USE.

HURRICANE E AVENUE VELOCITY 3390 MERCANTILE

HIGH

14-1902

PAGE DESCRIPTION: